genital ulcer disease (GUD). The second questionnaire targeted pharmacists working in both public and private health care facilities to elicit information on prescribing and dispensing practices. **RESULTS:** The availability of acyclovir in the public sector was a function of funding and prioritisation by policy makers. In Zimbabwe and Zambia for example, acyclovir was unavailable in the public sector because of a paucity of funds, while in Kenya, Tanzania and South Africa, accessibility to acyclovir in the public sector was poor because of low prioritisation by policy makers. Acyclovir was available in the private sector, albeit at higher prices than the private sector. Despite the availability of generic formulations and the presence of competitive markets, acyclovir was described as "poorly affordable" in the private sectors of all countries except Botswana, South Africa and Zambia. Moreover, private sector pharmacies used information asymmetry to inflate the price of acyclovir generics from European countries as a signal of quality. **CONCLUSION:** On-going clinical trials may determine acyclovir to be effective in preventing the transmission of human immunodeficiency virus (HIV) to susceptible patients. However, for this research to transition into policy, certain fundamental issues will need to be addressed. These include: information dissemination on the importance of acyclovir in GUD and HIV to policy makers and the general public; and the need for government intervention into competitive markets because of inequalities to access and information asymmetry.

PIN47

INPATIENT COSTS AND OUTCOMES ASSOCIATED WITH CHRONIC HEPATITIS C RELATED COMPLICATIONS IN THE UNITED STATES

Mitra D, Candrilli SD, Davis KL, Bapat B
RTI Health Solutions, Research Triangle Park, NC, USA

OBJECTIVE: Hepatitis C virus (HCV) is a common blood-borne infection in the US. Over time, patients with chronic HCV can encounter serious complications that impose a significant cost burden to third party payers. In this study, we generated national estimates of inpatient costs, length of stay (LOS), and probability of death associated with four major chronic HCV-related complications. **METHODS:** Discharge data for patients with chronic HCV (ICD-9 070.44, 070.54, 070.70, or 070.71) were analyzed using the 2005 HCUP Nationwide Inpatient Sample. Discharges related to ascites, variceal bleeding, hepatic encephalopathy, and hepatocellular carcinoma (hepatoma) were identified using relevant ICD-9 diagnosis codes. Weighted estimates of costs, LOS, and probability of death were calculated for stays related to these complications. **RESULTS:** We identified a weighted total of 275,737 chronic HCV-related discharges. Approximately 11.5% of these discharges were for ascites and 5.6% were for hepatic encephalopathy. Admissions for variceal bleeding and hepatoma were less common at 0.3% and 2.8%, respectively. Hepatoma, however, was associated with the highest total inpatient costs ($17,609) and LOS (6.3 days). The probability of death from hepatoma was 11%. Patients had 7.3 inpatient days on average for ascites with a cost per day of $2125 and total inpatient cost of $14,858. The probability of death from ascites was 9%. The average number of inpatient days for hepatic encephalopathy was 7 days with a cost per day of $1936, total inpatient cost of $13,380, and probability of death of 11%. Patients with variceal bleeding had the lowest inpatient costs ($12,128) and LOS (5.4 days). The probability of death from variceal bleeding (8%) was lower compared to the other complications. **CONCLUSION:** Advanced chronic HCV can lead to serious and costly complications. Efforts to improve HCV treatment may help slow disease progression and thus result in cost savings from avoided complications.

PIN48

TRENDS FOR NOSOCOMIAL SOFT TISSUE INFECTIONS, STAPHLOCOCCOUS AUREUS INFECTIONS, AND MRSA IN US HOSPITALS: 1998–2004

Dickson M[1], Kotchmar G[2], Roberts D[3]
[1]University of South Carolina, College of Pharmacy, Columbia, SC, USA, [2]University of South Carolina, Columbia, SC, USA, [3]South Carolina Department of Health and Environmental Control, Columbia, SC, USA

OBJECTIVE: Nosocomial infections are increasing. This study focuses on soft tissue infections, S aureus infections and MRSA nosocomial infections. Trends are quantified and analyzed for hospital and patient characteristics. **METHODS:** Data from the HCUP National Inpatient Sample (NIS) of US hospital discharges for 1998 through 2004 were used to estimate national trends in hospitalizations for three infectious conditions. Discharges where ICD9-CMs were recorded for soft tissue infections (680.xx, 681.xx, and 682.xx), S aureus infections (038.11, 041.11, and 482.41), and MRSA (V09.0) were included in the study. NIS discharge weights were used to generate nationally representative estimates of discharges for each infection and for their combinations with MRSA. Logistic regression was used to obtain odds ratios (ORs) for each infection and MRSA combination (1 = yes, 0 = no) and the independent variables of patient age, race, gender, income, hospital bedsize, location (urban/rural), mission (teaching/non-teaching), and expected payment source. **RESULTS:** From 1998 to 2004 discharges for soft tissue infections increased 47%, S aureus infections increased 28%, MRSA increased 223%, MRSA with S aureus increased 317%, and MRSA with soft tissue infection increased 608%. Regression results for the S aureus with MRSA combination in 1998 revealed that being white, and older increased the odds of this infection (ORs = 1.160 and 1.020 respectively) while being female reduced the odds (OR = 0.692). Larger hospitals had a lower odds (OR = 0.918) as did teaching hospitals (OR = 0.681). However urban hospitals odds were higher (OR = 1.384) and being a Medicare or Medicaid patient also was associated with an increased odds of the infection (ORs = 1.486 and 1.743 respectively). Only patient income was not significant ($p < 0.001$ for all other variables). Results for 2004 were similar but not the same. **CONCLUSION:** Nosocomial infections continue to increase as a percent of hospital stays, and the odds of infection are not equal across patient and hospital types.

PIN49

SPREAD PATTERN FORMATION OF H5N1-AVIAN INFLUENZA AND ITS IMPLICATIONS FOR CONTROL STRATEGIES

Duvvuri VRSK[1], Liu R[2], Wu J[1]
[1]York University, Toronto, ON, Canada, [2]Purdue University, West Lafayette, IN, USA

To develop deterministic models for comparing the relative effectiveness of various control measures, estimation of the spread speed of the virus in the environment and the interactions between spatial diffusion of birds and virus. Deterministic models were developed based on the H5N1 transmission cycle by partitioning the birds into three classes based on their epidemiological characteristics for the disease under consideration: poultry (c), wild birds—susceptible and die after H5N1 infection (w), and wild birds—susceptible but survive after H5N1 infection without apparent disease symptoms (d). Model parameters were obtained from existing literatures. Ordinary differential equations (ODE) and partial differential equations (PDE) analogues were utilized for the construction of models as described below. ODE was used to access the effects of control measures, one-dimensional PDE to study the spread speed of the disease,